

May 7, 2020

SUBJECT: SF-19-018 – Branding Iron at Sterling Ranch Filing No. 2 - Response Letter

General / Letter of Intent / Deviations

1. Resolved.
2. Resolved.
3. Verify that geologic hazard and soils report recommendations have been addressed appropriately for this specific subdivision filing. Specifically address construction requirements for the east end of Sprague Way. **To be addressed in pavement design report.**
4. Resolved.
5. Address any proposed street lighting in the Letter of Intent. A license agreement will be required if street lights are proposed within County rights-of-way. Unresolved; no mention found in LOI. **Unresolved. A ROW License agreement is on the list to be submitted herewith.**
6. Resolved.
7. Provide a complete, updated wetland mitigation plan. Documentation regarding adherence to the mitigation plan shall be provided to the Planning and Community Development Department by December 31 of each year beginning at the time of initial ground disturbing activities (2019) continuing for three years or until the permit is closed. **Provide when available.**
8. **The landscape plan submitted is illegible. NES will submit a legible plan for this project.**

Final Plat

1. Resolved.
2. Resolved.

Transportation / Traffic Impact Memorandum

1. The method for collecting "fair share" funds (separate from the countywide impact fee) for Sterling Ranch offsite improvements/signals not constructed with the Filing 1 or future Filing 2 plats needs to be addressed. If this will be anything other than a per-lot contribution to an escrow account with each replat subdivision, it should be added to the SIA. **This comment was resolved at a prior meeting with EPC staff.**
2. See TIS redlines. **Unresolved; updated TIS not found. A revised TIS is on the list to be submitted herewith from LSC.**

Final Drainage Report (FDR) / Drainage Plans

1. See FDR redlines. Partially resolved; see updated/remaining minor redlines. **Partially resolved; provide the correct proposed drainage plan in the report. Reference second review redlines on that sheet. Provide the signature date on engineer's stamp. The corrected Proposed Drainage plan has been included per the second review. The Date has been added to the stamp.**
2. Resolved.
3. Resolved.

Per SR Filing No. 1 – Channel Improvement Plans are forthcoming and will address the channel comments below.

4. Regarding report requirements for drainage improvements to Sand Creek:
 - a. Except for a few short segments, the provided channel calculations show the flow being supercritical throughout the reaches adjacent to Branding Iron Filing 2 and Homestead Filing 2; this requires a detailed and comprehensive design, not just temporary stabilization based on the outside flow velocities. Hydraulic jumps and curves throughout the subject reach would potentially cause issues with the proposed interim design improvements. Hydraulic forces on the linings could detach linings from the soil allowing erosion of the soil surface. Channel design parameters need to be agreed upon, including subcritical flows and/or control of hydraulic jumps and could possibly require a more detailed modeling method. Reference UDCFD USDCM Volume 1, Chapter 8, Sections 2-5 and V2 Chapter 9.
 - b. Additional information is required regarding the shear stresses and velocities in the bankfull channel. Severe bank erosion can occur when a low-flow channel migrates into the outer bank, undermining the toe of the bank and causing a steep eroded face.
 - c. Complete channel stabilization improvements need to be provided adjacent to/around the proposed pond outfalls and other regraded areas to protect the outfalls and other areas of the creek that could be affected by the grading work alone, as well as the pond outfall flows.
 - d. Note: A maintenance agreement for permanent stormwater measures in Sand Creek will be required. If the developer desires reimbursement for the construction costs and for the County to maintain the improvements, the process in the DCM needs to be followed (reference DCM Sections 1.7 and 3.3). A longer reach than the area directly adjacent to these two subdivision filings may need to be improved to qualify for reimbursement and maintenance eligibility.
 - e. Ultimate channel design plans/recommendations for Sand Creek have not been received at this time. Provide complete design information, calculations and modeling for the improved condition adjacent to and upstream and downstream of the proposed subdivisions when available. Any interim improvements need to be coordinated with ultimate improvements to minimize impacts to lot purchasers.
 - f. A FEMA-approved CLOMR/LOMR may be required due to proposed construction in the floodplain. Verify with Keith Curtis, the Regional Floodplain Administrator once the complete plans have been drafted.
5. Resolved.
6. Resolved.
7. Drainage Plan:
 - a. through d – Resolved.
 - e. Show and label all maintenance access roads/trails. Partially resolved; see updated redlines. **Unresolved. Additional labels have been added for the maintenance access trail.**

Construction Plans / Geotechnical Issues Per SR Filing No. 1 – Channel Improvement Plans are forthcoming and will address the channel comments below.

1. Sand Creek channel construction plans:
 - a. Provide a complete channel plan and profile for the applicable reaches.

- b. The channel design needs to be verified for overall stability including velocities and shear stresses with the proposed blanketing (ECB / TRM).
 - c. See redlines on bank stabilization plans. **Partially resolved; see updated/remaining redlines. Comments addressed on Bank Stabilization Plans. See below regarding trail access.**
2. Resolved.
 3. Storm Drain Plans
 - a. Label all storm drain segments as public or private/district. **Unresolved. These plans have already been approved, with a note on the cover sheet of the storm sewer plans to differentiate public vs. private storm sewer.**
 - b. Resolved.
 4. If there will be USPS mail kiosk/cluster(s) in this subdivision provide location(s) and details. Not found. **Provide when available.**
 5. Resolved.
 6. Provide pedestrian ramps for the three intersections along Yellowtail Way. **Unresolved. Mid Block pedestrian ramps would conflict with residential driveways on the east side of Yellowtail way. This is not recommended. Lets Discuss.**

Grading and Erosion Control Plan / SWMP

1. As noted at the beginning of these comments, updated GEC and SWMP checklists are required to be provided by the design engineer. Provide with the next submittal. Instructions are provided below the list of attachments. Partially resolved; see GEC plan and checklist redlines. No SWMP was found in the submittal items.
 - a. **Partially resolved; see remaining GEC plan and checklist redlines. The GEC redlines and checklist items have been addressed.**
 - b. **See cursory SWMP plan and checklist redlines. Compare to Homestead SWMP for faster review. Yes, Homestead #2's latest SWMP and checklist was used to update the SWMP for BI#2.**
2. Resolved.
3. Include all necessary improvements including channel stabilization in the GEC Plan and SWMP. Address short-term and long-term stability of the channel beside this subdivision. **Resolved for bank stabilization; address channel in SWMP. Unresolved. Homestead 2's latest SWMP and checklist was used to update the SWMP for BI#2.**
4. Clearly show and label all maintenance access roads and the trail on the plans. Partially resolved; see redlines. Note: conditions of approval regarding the public trail will be provided when available. **Partially resolved; see remaining redlines (provide small portion of access trail to cul-de-sac). The location shown on the redlines is not recommended due to the proposed slope. A better location is labeled at the end of Sprague Way and off of Dines Blvd.**
5. Resolved.

SIA/ Forms / Agreements

1. Note: Review of the Financial Assurance Estimate was cursory at this time. FAE quantities and costs will be reviewed in detail with the next submittal. See FAE redlines. **Add pedestrian ramps for Yellowtail Way crossings also. Unresolved. See above. No additional ped ramps were added to the plans.**

2. See County Attorney's comments on the SIA additional comments may be added on the next review. See updated CAO comments. **In progress thru Eric Howard and the CAO.**
3. Note: any utility system improvements not completed prior to recording the plat will need to be collateralized and addressed in the SIA.
4. If there will be any street lights placed in the County ROW, plans and coordination between MVEA and County staff is required, as well as a license agreement. (This applies to any subdivision).

Note; In previous submittals, I'm not sure that the EDARP system from the EPC side is seeing the most recent document submitted. For instance the PBMP Appl. Form was revised, but the same comments were returned 4/28/2020. Let's discuss.

Virgil A. Sanchez, P.E.
On behalf of
M&S Civil Consultants, Inc.